

Sequence Listing

- <110> Avi J. Ashkenazi
Kevin P. Baker
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Luc Desnoyers
Dan L. Eaton
Napoleone Ferrara
Sherman Fong
Wei-Qiang Gao
Hanspeter Gerber
Mary E. Gerritsen
Audrey Goddard
Paul J. Godowski
Austin L. Gurney
Ivar J. Kljavin
Jennie P. Mather
Mary A. Napier
James Pan
Nicholas F. Paoni
Margaret Ann Roy
Timothy A. Stewart
Daniel Tumas
Colin K. Watanabe
P. Mickey Williams
William I. Wood
Zemin Zang
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35 40 45
Cys Arg Thr Ile Pro Glu Ala Cys Arg Gly Asp Met Met Cys Val
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Pro	Tyr	Pro	Ala	Ala	Ala	Pro	Pro	Leu	Ser	Ala	Pro	Asn	Tyr	Pro	
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Gln Pro Arg Phe Gln Ala Phe Ala Asn Gly Ser Leu Leu Ile Pro
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Thr Pro Gly Glu Gly Gly Glu Asp Thr Leu Gly Arg Arg Phe His
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Gly Lys Ala Val Glu Gly Lys Gly Cys Tyr Thr Val Asp Asn Glu
365 370 375

Val Gln Pro Ser Gly Pro Glu Asp Asn Val Val Ile Ile Tyr Leu
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catttgctag ttgtatcaaa tcttggtacg cagtattttt ataccagtat 900

tttatgtagt gaagatgtca attagcagga aactaaaatg aatggaaatt 950

cttaaaaaaa aaa 963

<210> 32

<211> 235

<212> PRT

<213> Homo Sapien

<400> 32

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acaggtgtat gtaaattgact tacctgtaaa tagtggtgta acccgaataa 400
gctgtcagac tttgatagtg aagaatgaaa atcttgaaaa tttggaggaa 450
aaagaatatt ttggaattgt cagtgttaagg attttagttc atgagtggcc 500
tatgacatct gggtccagtt tgcaactaat tgtcattcaa gaagaggtag 550
tagagattga tggaaaacaa gttcagcaaa aggatgtcac tgaaattgat 600
attttagtta agaaccgggg agtactcaga cattcaaact atacctccc 650
tttggaagaa agcatgctct actctatttc tcgagacagt gacattttat 700
ttacccttcc taacctctcc aaaaaagaaa gtgttagttc actgcaaacc 750
actagccagt atcttatcag gaatgtggaa accactgtag atgaagatgt 800
tttacctggc aagttacctg aaactcctct cagagcagag ccgccatctt 850
catataaggt aatgtgtcag tggatggaaa agtttagaaa agatctgtgt 900
aggttctgga gcaacgtttt ccagtatctt tttcagtttt tgaacatcat 950
gggtggttga attacaggag cagctgtggt aataaccatc ttaaagggtgt 1000
ttttcccagt ttctgaatac aaaggaattc ttcagttgga taaagtggac 1050
gtcatacctg tgacagctat caacttatat ccagatggtc cagagaaaag 1100
agctgaaaac cttgaagata aaacatgtat ttaaaacgcc atctcatatc 1150
atggactccg aagtagcctg ttgcctccaa atttgccact tgaatataat 1200
tttcttttaa tcggtt 1215

<210> 39
<211> 330
<212> PRT
<213> Homo Sapien

<400> 39
Met Glu Gly Ala Pro Pro Gly Ser Leu Ala Leu Arg Leu Leu Leu
1 5 10 15
Phe Val Ala Leu Pro Ala Ser Gly Trp Leu Thr Thr Gly Ala Pro
20 25 30
Glu Pro Pro Pro Leu Ser Gly Ala Pro Gln Asp Gly Ile Arg Ile
35 40 45
Asn Val Thr Thr Leu Lys Asp Asp Gly Asp Ile Ser Lys Gln Gln

				50					55					60
Val	Val	Leu	Asn	Ile 65	Thr	Tyr	Glu	Ser	Gly 70	Gln	Val	Tyr	Val	Asn 75
Asp	Leu	Pro	Val	Asn 80	Ser	Gly	Val	Thr	Arg 85	Ile	Ser	Cys	Gln	Thr 90
Leu	Ile	Val	Lys	Asn 95	Glu	Asn	Leu	Glu	Asn 100	Leu	Glu	Glu	Lys	Glu 105
Tyr	Phe	Gly	Ile	Val 110	Ser	Val	Arg	Ile	Leu 115	Val	His	Glu	Trp	Pro 120
Met	Thr	Ser	Gly	Ser 125	Ser	Leu	Gln	Leu	Ile 130	Val	Ile	Gln	Glu	Glu 135
Val	Val	Glu	Ile	Asp 140	Gly	Lys	Gln	Val	Gln 145	Gln	Lys	Asp	Val	Thr 150
Glu	Ile	Asp	Ile	Leu 155	Val	Lys	Asn	Arg	Gly 160	Val	Leu	Arg	His	Ser 165
Asn	Tyr	Thr	Leu	Pro 170	Leu	Glu	Glu	Ser	Met 175	Leu	Tyr	Ser	Ile	Ser 180
Arg	Asp	Ser	Asp	Ile 185	Leu	Phe	Thr	Leu	Pro 190	Asn	Leu	Ser	Lys	Lys 195
Glu	Ser	Val	Ser	Ser 200	Leu	Gln	Thr	Thr	Ser 205	Gln	Tyr	Leu	Ile	Arg 210
Asn	Val	Glu	Thr	Thr 215	Val	Asp	Glu	Asp	Val 220	Leu	Pro	Gly	Lys	Leu 225
Pro	Glu	Thr	Pro	Leu 230	Arg	Ala	Glu	Pro	Pro 235	Ser	Ser	Tyr	Lys	Val 240
Met	Cys	Gln	Trp	Met 245	Glu	Lys	Phe	Arg	Lys 250	Asp	Leu	Cys	Arg	Phe 255
Trp	Ser	Asn	Val	Phe 260	Pro	Val	Phe	Phe	Gln 265	Phe	Leu	Asn	Ile	Met 270
Val	Val	Gly	Ile	Thr 275	Gly	Ala	Ala	Val	Val 280	Ile	Thr	Ile	Leu	Lys 285
Val	Phe	Phe	Pro	Val 290	Ser	Glu	Tyr	Lys	Gly 295	Ile	Leu	Gln	Leu	Asp 300
Lys	Val	Asp	Val	Ile 305	Pro	Val	Thr	Ala	Ile 310	Asn	Leu	Tyr	Pro	Asp 315
Gly	Pro	Glu	Lys	Arg 320	Ala	Glu	Asn	Leu	Glu 325	Asp	Lys	Thr	Cys	Ile 330

<210>	40
<211>	2498

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 gggctctagcc tgggtgtgta cggaggggtct agtctgagtg cgtgtgggga 1550
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 caagaaggct gccaccattc cctgccagcc caagaactcc agcttcccca 1650
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 agtgtgcccc ctgggaaagg gcacggcctg tgctcctgac acgggctgtg 1750
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 acgccaagac tcacgcatgt gtgacatccg gagtcctgga gccgggtgtc 2000
 ccagtggcac cactaggtgc ctgctgcctc cacagtgggg ttcacacca 2050
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 ctccagccag acctgcctca cccaccaatg cagccggggc tggcgacacc 2150
 agccaggtgc tgggtcttggg ccagttctcc cacgacggct caccctcccc 2200
 tccatctgcg ttgatgctca gaatcgcta cctgtgcctg cgtgtaaacc 2250
 acagcctcag accagctatg gggagaggac aacacggagg atatccagct 2300
 tccccgggtct ggggtgagga atgtggggag cttgggcatc ctctccagc 2350
 ctctccagc cccagggcag tgccttacct gtggtgcca gaaaagtgcc 2400
 cctaggttgg tgggtctaca ggagcctcag ccaggcagcc caccaccacc 2450
 tggggccctg cctcaccaag gaaataaaga ctcaagccat aaaaaaaaa 2498

<210> 41
 <211> 263
 <212> PRT
 <213> Homo Sapien

<400> 41
 Met Arg Pro Gly Ala Pro Gly Pro Leu Trp Pro Leu Pro Trp Gly
 1 5 10 15
 Ala Leu Ala Trp Ala Val Gly Phe Val Ser Ser Met Gly Ser Gly
 20 25 30

Asn Pro Ala Pro Gly Gly Val Cys Trp Leu Gln Gln Gly Gln Glu
35 40 45

Ala Thr Cys Ser Leu Val Leu Gln Thr Asp Val Thr Arg Ala Glu
50 55 60

Cys Cys Ala Ser Gly Asn Ile Asp Thr Ala Trp Ser Asn Leu Thr
65 70 75

His Pro Gly Asn Lys Ile Asn Leu Leu Gly Phe Leu Gly Leu Val
80 85 90

His Cys Leu Pro Cys Lys Asp Ser Cys Asp Gly Val Glu Cys Gly
95 100 105

Pro Gly Lys Ala Cys Arg Met Leu Gly Gly Arg Pro Arg Cys Glu
110 115 120

Cys Ala Pro Asp Cys Ser Gly Leu Pro Ala Arg Leu Gln Val Cys
125 130 135

Gly Ser Asp Gly Ala Thr Tyr Arg Asp Glu Cys Glu Leu Arg Ala
140 145 150

Ala Arg Cys Arg Gly His Pro Asp Leu Ser Val Met Tyr Arg Gly
155 160 165

Arg Cys Arg Lys Ser Cys Glu His Val Val Cys Pro Arg Pro Gln
170 175 180

Ser Cys Val Val Asp Gln Thr Gly Ser Ala His Cys Val Val Cys
185 190 195

Arg Ala Ala Pro Cys Pro Val Pro Ser Ser Pro Gly Gln Glu Leu
200 205 210

Cys Gly Asn Asn Asn Val Thr Tyr Ile Ser Ser Cys His Met Arg
215 220 225

Gln Ala Thr Cys Phe Leu Gly Arg Ser Ile Gly Val Arg His Ala
230 235 240

Gly Ser Cys Ala Gly Thr Pro Glu Glu Pro Pro Gly Gly Glu Ser
245 250 255

Ala Glu Glu Glu Glu Asn Phe Val
260

<210> 42

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 42

tcctgtgagc acgtggtgtg 20

$\frac{1}{\sqrt{\pi}} \int_{-\infty}^{\infty} f(x) \delta(x-a) dx = f(a)$

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<210> 43
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 43
gggtgggata gacctgcg 18

<210> 44
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 44
aaggccaaga aggctgcc 18

<210> 45
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 45
ccaggcctgc agaccag 18

<210> 46
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 46
cttcctcagt ccttccagga tatc 24

<210> 47
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 47
aagctggata tcctccgtgt tgtc 24

<210> 48
<211> 27
<212> DNA

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<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 48

cctgaagagg catgactgct tttctca 27

<210> 49

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 49

ggggataaac ctattaatta ttgctac 27

<210> 50

<211> 44

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 50

aacgtcacct acatctcttc gtgccacatg cgccaggcca cctg 44

<210> 51

<211> 1690

<212> DNA

<213> Homo Sapien

<400> 51

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cgctgctggg gttgtggctg ttgctgtgca gctgcggatg ccccgagggc 100

gccgagctgc gtgctccgcc agataaaatc gcgattattg gagccggaat 150

tgggtggcact tcagcagcct attacctgcg gcagaaattt gggaaagatg 200

tgaagataga cctgtttgaa agagaagagg tcggggggccg cctggctacc 250

atgatgggtgc aggggcaaga atacgaggca ggagggttctg tcatccatcc 300

tttaaactctg cacatgaaac gttttgtcaa agacctgggt ctctctgctg 350

ttcaggcctc tgggtggccta ctggggatat ataatggaga gactctggta 400

tttgaggaga gcaactgggt cataattaac gtgattaaat tagtttggcg 450

ctatggattt caatccctcc gtatgcacat gtgggtagag gacgtgttag 500

acaagttcat gaggatctac cgctaccagt ctcatgacta tgccttcagt 550

Arg Ala Pro Pro Asp Lys Ile Ala Ile Ile Gly Ala Gly Ile Gly
35 40 45

Gly Thr Ser Ala Ala Tyr Tyr Leu Arg Gln Lys Phe Gly Lys Asp
50 55 60

Val Lys Ile Asp Leu Phe Glu Arg Glu Glu Val Gly Gly Arg Leu
65 70 75

Ala Thr Met Met Val Gln Gly Gln Glu Tyr Glu Ala Gly Gly Ser
80 85 90

Val Ile His Pro Leu Asn Leu His Met Lys Arg Phe Val Lys Asp
95 100 105

Leu Gly Leu Ser Ala Val Gln Ala Ser Gly Gly Leu Leu Gly Ile
110 115 120

Tyr Asn Gly Glu Thr Leu Val Phe Glu Glu Ser Asn Trp Phe Ile
125 130 135

Ile Asn Val Ile Lys Leu Val Trp Arg Tyr Gly Phe Gln Ser Leu
140 145 150

Arg Met His Met Trp Val Glu Asp Val Leu Asp Lys Phe Met Arg
155 160 165

Ile Tyr Arg Tyr Gln Ser His Asp Tyr Ala Phe Ser Ser Val Glu
170 175 180

Lys Leu Leu His Ala Leu Gly Gly Asp Asp Phe Leu Gly Met Leu
185 190 195

Asn Arg Thr Leu Leu Glu Thr Leu Gln Lys Ala Gly Phe Ser Glu
200 205 210

Lys Phe Leu Asn Glu Met Ile Ala Pro Val Met Arg Val Asn Tyr
215 220 225

Gly Gln Ser Thr Asp Ile Asn Ala Phe Val Gly Ala Val Ser Leu
230 235 240

Ser Cys Ser Asp Ser Gly Leu Trp Ala Val Glu Gly Gly Asn Lys
245 250 255

Leu Val Cys Ser Gly Leu Leu Gln Ala Ser Lys Ser Asn Leu Ile
260 265 270

Ser Gly Ser Val Met Tyr Ile Glu Glu Lys Thr Lys Thr Lys Tyr
275 280 285

Thr Gly Asn Pro Thr Lys Met Tyr Glu Val Val Tyr Gln Ile Gly
290 295 300

Thr Glu Thr Arg Ser Asp Phe Tyr Asp Ile Val Leu Val Ala Thr
305 310 315

Pro Leu Asn Arg Lys Met Ser Asn Ile Thr Phe Leu Asn Phe Asp

[illegible]

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<400> 55
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gcgtcagaga gaaagaactg actgaaacgt ttgagatgaa gaaagttctc 100
ctcctgatca cagccatctt ggcagtggct gttggtttcc cagtctctca 150
agaccaggaa cgagaaaaaa gaagtatcag tgacagcgat gaattagctt 200
cagggttttt tgtgttcctt tacccatatt catttcgccc acttccacca 250
attccatttc caagatttcc atggttttaga cgtaattttc ctattccaat 300
acctgaatct gccctacaa ctcccccttc tagcgaaaag taaacaagaa 350
ggataagtca cgataaacct ggtcacctga aattgaaatt gagccacttc 400
cttgaagaat caaaattcct gttaataaaa gaaaaacaaa tgtaattgaa 450
atagcacaca gcattctcta gtcaatatct ttagtgatct tctttaataa 500
acatgaaagc aaagattttg gtttcttaat ttccaca 537
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<210> 56
<211> 85
<212> PRT
<213> Homo Sapien
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<400> 56
Met  Lys  Lys  Val  Leu  Leu  Leu  Ile  Thr  Ala  Ile  Leu  Ala  Val  Ala
  1                               5          10              15

Val  Gly  Phe  Pro  Val  Ser  Gln  Asp  Gln  Glu  Arg  Glu  Lys  Arg  Ser
                20                      25              30

Ile  Ser  Asp  Ser  Asp  Glu  Leu  Ala  Ser  Gly  Phe  Phe  Val  Phe  Pro
                35                      40              45

Tyr  Pro  Tyr  Pro  Phe  Arg  Pro  Leu  Pro  Pro  Ile  Pro  Phe  Pro  Arg
                50                      55              60

Phe  Pro  Trp  Phe  Arg  Arg  Asn  Phe  Pro  Ile  Pro  Ile  Pro  Glu  Ser
                65                      70              75

Ala  Pro  Thr  Thr  Pro  Leu  Pro  Ser  Glu  Lys
                80                      85

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```
<210> 57
<211> 2997
<212> DNA
<213> Homo Sapien
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<400> 57

cggacgcgtg	ggcggggcgcg	ccgggagggga	ccggcgggcgg	catggggccgg	50
gggccctggg	atgcggggccc	gtctcgccgc	ctgctgccgc	tgttgctgct	100
gctcggcctg	gcccgcggcg	ccgcggggagc	gccggggcccc	gacggtttag	150
acgtctgtgc	cacttgccat	gaacatgccca	catgccagca	aagagaaggg	200
aagaagatct	gtatttgcaa	ctatggattt	gtaggggaacg	ggaggactca	250
gtgtgttgat	aaaaatgagt	gccagtttgg	agccactctt	gtctgtggga	300
accacacatc	ttgccacaac	acccccgggg	gcttctattg	catttgccctg	350
gaaggatatc	gagccacaaa	caacaacaag	acattcattc	ccaacgatgg	400
caccttttgt	acagacatag	atgagtgtga	agtttctggc	ctgtgcaggc	450
atggagggcg	atgcgtgaac	actcatggga	gctttgaatg	ctactgtatg	500
gatggatact	tgccaaggaa	tggacctgaa	cctttccacc	cgaccaccga	550
tgccacatca	tgcacagaaa	tagactgtgg	taccctcct	gaggttccag	600
atggctatat	cataggaaat	tatacgtcta	gtctgggcag	ccaggttcgt	650
tatgcttgca	gagaaggatt	cttcagtgtt	ccagaagata	cagtttcaag	700
ctgcacaggc	ctgggcacat	gggagtcccc	aaaattacat	tgccaagaga	750
tcaactgtgg	caaccctcca	gaaatgcggc	acgccatctt	ggtaggaaat	800
cacagctcca	ggctggggcg	tgtggctcgc	tatgtctgtc	aagagggctt	850
tgagagccct	ggaggaaaga	tcacttctgt	ttgcacagag	aaaggcacct	900
ggagagaaag	tactttaaca	tgcacagaaa	ttctgacaaa	gattaatgat	950
gtatcactgt	ttaatgatac	ctgtgtgaga	tggcaaataa	actcaagaag	1000
aataaaccct	aagatctcat	atgtgatatc	cataaaagga	caacggttgg	1050
accctatgga	atcagttcgt	gaggagacag	tcaacttgac	cacagacagc	1100
aggaccccag	aagtgtgcct	agccctgtac	ccaggcacca	actacaccgt	1150
gaacatctcc	acagcacctc	ccaggcgctc	gatgccagcc	gtcatcggtt	1200
tccagacagc	tgaagttgat	ctcttagaag	atgatggaag	tttcaatatt	1250
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tggctaactt	ttctcatgca	acatcgttta	acttcacaac	gagggaaaca	1400
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 aaggcgcttc ctcttcttt agcaacgcct ctgatgctga tggatacgtg 2000
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 gtgagaagac actcctgtgc agtttgggct cagggtgaaag attcgtcact 2200
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 atactaatga gaaaatatac tagcctggcc atgccaataa gtttctgct 2900

[illegible]

tcaaaagtaa tgtctacatt ccagtaaaaa tatcccgtaa ttaaaaa 2997

<210> 58

<211> 747

<212> PRT

<213> Homo Sapien

<400> 58

Met Gly Arg Gly Pro Trp Asp Ala Gly Pro Ser Arg Arg Leu Leu
1 5 10 15

Pro Leu Leu Leu Leu Leu Gly Leu Ala Arg Gly Ala Ala Gly Ala
20 25 30

Pro Gly Pro Asp Gly Leu Asp Val Cys Ala Thr Cys His Glu His
35 40 45

Ala Thr Cys Gln Gln Arg Glu Gly Lys Lys Ile Cys Ile Cys Asn
50 55 60

Tyr Gly Phe Val Gly Asn Gly Arg Thr Gln Cys Val Asp Lys Asn
65 70 75

Glu Cys Gln Phe Gly Ala Thr Leu Val Cys Gly Asn His Thr Ser
80 85 90

Cys His Asn Thr Pro Gly Gly Phe Tyr Cys Ile Cys Leu Glu Gly
95 100 105

Tyr Arg Ala Thr Asn Asn Asn Lys Thr Phe Ile Pro Asn Asp Gly
110 115 120

Thr Phe Cys Thr Asp Ile Asp Glu Cys Glu Val Ser Gly Leu Cys
125 130 135

Arg His Gly Gly Arg Cys Val Asn Thr His Gly Ser Phe Glu Cys
140 145 150

Tyr Cys Met Asp Gly Tyr Leu Pro Arg Asn Gly Pro Glu Pro Phe
155 160 165

His Pro Thr Thr Asp Ala Thr Ser Cys Thr Glu Ile Asp Cys Gly
170 175 180

Thr Pro Pro Glu Val Pro Asp Gly Tyr Ile Ile Gly Asn Tyr Thr
185 190 195

Ser Ser Leu Gly Ser Gln Val Arg Tyr Ala Cys Arg Glu Gly Phe
200 205 210

Phe Ser Val Pro Glu Asp Thr Val Ser Ser Cys Thr Gly Leu Gly
215 220 225

Thr Trp Glu Ser Pro Lys Leu His Cys Gln Glu Ile Asn Cys Gly
230 235 240

Asn	Pro	Pro	Glu	Met	Arg	His	Ala	Ile	Leu	Val	Gly	Asn	His	Ser	245	250	255
Ser	Arg	Leu	Gly	Gly	Val	Ala	Arg	Tyr	Val	Cys	Gln	Glu	Gly	Phe	260	265	270
Glu	Ser	Pro	Gly	Gly	Lys	Ile	Thr	Ser	Val	Cys	Thr	Glu	Lys	Gly	275	280	285
Thr	Trp	Arg	Glu	Ser	Thr	Leu	Thr	Cys	Thr	Glu	Ile	Leu	Thr	Lys	290	295	300
Ile	Asn	Asp	Val	Ser	Leu	Phe	Asn	Asp	Thr	Cys	Val	Arg	Trp	Gln	305	310	315
Ile	Asn	Ser	Arg	Arg	Ile	Asn	Pro	Lys	Ile	Ser	Tyr	Val	Ile	Ser	320	325	330
Ile	Lys	Gly	Gln	Arg	Leu	Asp	Pro	Met	Glu	Ser	Val	Arg	Glu	Glu	335	340	345
Thr	Val	Asn	Leu	Thr	Thr	Asp	Ser	Arg	Thr	Pro	Glu	Val	Cys	Leu	350	355	360
Ala	Leu	Tyr	Pro	Gly	Thr	Asn	Tyr	Thr	Val	Asn	Ile	Ser	Thr	Ala	365	370	375
Pro	Pro	Arg	Arg	Ser	Met	Pro	Ala	Val	Ile	Gly	Phe	Gln	Thr	Ala	380	385	390
Glu	Val	Asp	Leu	Leu	Glu	Asp	Asp	Gly	Ser	Phe	Asn	Ile	Ser	Ile	395	400	405
Phe	Asn	Glu	Thr	Cys	Leu	Lys	Leu	Asn	Arg	Arg	Ser	Arg	Lys	Val	410	415	420
Gly	Ser	Glu	His	Met	Tyr	Gln	Phe	Thr	Val	Leu	Gly	Gln	Arg	Trp	425	430	435
Tyr	Leu	Ala	Asn	Phe	Ser	His	Ala	Thr	Ser	Phe	Asn	Phe	Thr	Thr	440	445	450
Arg	Glu	Gln	Val	Pro	Val	Val	Cys	Leu	Asp	Leu	Tyr	Pro	Thr	Thr	455	460	465
Asp	Tyr	Thr	Val	Asn	Val	Thr	Leu	Leu	Arg	Ser	Pro	Lys	Arg	His	470	475	480
Ser	Val	Gln	Ile	Thr	Ile	Ala	Thr	Pro	Pro	Ala	Val	Lys	Gln	Thr	485	490	495
Ile	Ser	Asn	Ile	Ser	Gly	Phe	Asn	Glu	Thr	Cys	Leu	Arg	Trp	Arg	500	505	510
Ser	Ile	Lys	Thr	Ala	Asp	Met	Glu	Glu	Met	Tyr	Leu	Phe	His	Ile	515	520	525
Trp	Gly	Gln	Arg	Trp	Tyr	Gln	Lys	Glu	Phe	Ala	Gln	Glu	Met	Thr			

	530		535		540
Phe Asn Ile Ser	Ser Ser Ser Arg Asp	Pro Glu Val Cys Leu Asp			
	545	550		555	
Leu Arg Pro Gly	Thr Asn Tyr Asn Val	Ser Leu Arg Ala Leu Ser			
	560	565		570	
Ser Glu Leu Pro	Val Val Ile Ser Leu	Thr Thr Gln Ile Thr Glu			
	575	580		585	
Pro Pro Leu Pro	Glu Val Glu Phe Phe	Thr Val His Arg Gly Pro			
	590	595		600	
Leu Pro Arg Leu	Arg Leu Arg Lys Ala	Lys Glu Lys Asn Gly Pro			
	605	610		615	
Ile Ser Ser Tyr	Gln Val Leu Val Leu	Pro Leu Ala Leu Gln Ser			
	620	625		630	
Thr Phe Ser Cys	Asp Ser Glu Gly Ala	Ser Ser Phe Phe Ser Asn			
	635	640		645	
Ala Ser Asp Ala	Asp Gly Tyr Val Ala	Ala Glu Leu Leu Ala Lys			
	650	655		660	
Asp Val Pro Asp	Asp Ala Met Glu Ile	Pro Ile Gly Asp Arg Leu			
	665	670		675	
Tyr Tyr Gly Glu	Tyr Tyr Asn Ala Pro	Leu Lys Arg Gly Ser Asp			
	680	685		690	
Tyr Cys Ile Ile	Leu Arg Ile Thr Ser	Glu Trp Asn Lys Val Arg			
	695	700		705	
Arg His Ser Cys	Ala Val Trp Ala Gln	Val Lys Asp Ser Ser Leu			
	710	715		720	
Met Leu Leu Gln	Met Ala Gly Val Gly	Leu Gly Ser Leu Ala Val			
	725	730		735	
Val Ile Ile Leu	Thr Phe Leu Ser Phe	Ser Ala Val			
	740	745			

<210> 59
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 59
 ccacttgcca tgaacatgcc ac 22

<210> 60
 <211> 25
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 60

cctcttgaca gacatagcga gccac 25

<210> 61

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 61

cactcttgtc tgtgggaacc acacatcttg ccacaactgt ggc 43

<210> 62

<211> 2015

<212> DNA

<213> Homo Sapien

<400> 62

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 ccggctagga tgggctgtct ctgggggtctg gctctgcccc ttttcttctt 100
 ctgctgggag gttgggggtct ctgggagctc tgcaggcccc agcaccgcga 150
 gagcagacac tgcgatgaca acggacgaca cagaagtgcc cgctatgact 200
 ctagcaccgg gccacgccgc tctggaaact caaacgctga gcgctgagac 250
 ctcttctagg gcctcaaccc cagccggccc cattccagaa gcagagacca 300
 ggggagccaa gagaatttcc cctgcaagag agaccaggag tttcacaaaa 350
 acatctccca acttcatggg gctgatcgcc acctccgtgg agacatcagc 400
 cgccagtggc agccccgagg gagctggaat gaccacagtt cagaccatca 450
 caggcagtga tcccaggagaa gccatctttg acaccctttg caccgatgac 500
 agctctgaag aggcaaagac actcacaatg gacatattga cattgggtca 550
 cacctccaca gaagctaagg gcctgtcctc agagagcagt gcctcttccg 600
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 cagcgctct tccgacggcc cccatccagt catcaccccg tcatgggtccc 750
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 atcgagggtta ttaattgcag catcacagaa atagaaacaa caacttccag 850

catccctggg gcctcagaca tagatctcat cccacggaa ggggtgaagg 900
cctcgtccac ctccgatcca ccagctctgc ctgactccac tgaagcaaaa 950
ccacacatca ctgaggtcac agcctctgcc gagaccctgt ccacagccgg 1000
caccacagag tcagctgcac ctcatgccac ggttgggacc ccactcccca 1050
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cgagggacga acagcacctt agccaagatc acaacctcag cgaagaccac 1450
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gggcagcatg tccaagcccc taaccccaga tgtggcaaca ggacctcgc 1850
tcacatccac cggagtgtat gtatggggag gggcttcacc tgttcccaga 1900
gggtgccttg gactcacctt ggcacatgtt ctgtgtttca gtaaagagag 1950
acctgatcac ccatctgtgt gcttccatcc tgcattaaaa ttcactcagt 2000
gtggcccaaa aaaaa 2015

<210> 63
<211> 482
<212> PRT
<213> Homo Sapien

<400> 63
Met Gly Cys Leu Trp Gly Leu Ala Leu Pro Leu Phe Phe Phe Cys
1 5 10 15
Trp Glu Val Gly Val Ser Gly Ser Ser Ala Gly Pro Ser Thr Arg

	20		25		30
Arg Ala Asp Thr	Ala Met Thr Thr Asp	Asp Thr Glu Val Pro	Ala		
	35	40	45		
Met Thr Leu Ala	Pro Gly His Ala Ala	Leu Glu Thr Gln Thr	Leu		
	50	55	60		
Ser Ala Glu Thr	Ser Ser Arg Ala Ser	Thr Pro Ala Gly Pro	Ile		
	65	70	75		
Pro Glu Ala Glu	Thr Arg Gly Ala Lys	Arg Ile Ser Pro Ala	Arg		
	80	85	90		
Glu Thr Arg Ser	Phe Thr Lys Thr Ser	Pro Asn Phe Met Val	Leu		
	95	100	105		
Ile Ala Thr Ser	Val Glu Thr Ser Ala	Ala Ser Gly Ser Pro	Glu		
	110	115	120		
Gly Ala Gly Met	Thr Thr Val Gln Thr	Ile Thr Gly Ser Asp	Pro		
	125	130	135		
Glu Glu Ala Ile	Phe Asp Thr Leu Cys	Thr Asp Asp Ser Ser	Glu		
	140	145	150		
Glu Ala Lys Thr	Leu Thr Met Asp Ile	Leu Thr Leu Ala His	Thr		
	155	160	165		
Ser Thr Glu Ala	Lys Gly Leu Ser Ser	Glu Ser Ser Ala Ser	Ser		
	170	175	180		
Asp Gly Pro His	Pro Val Ile Thr Pro	Ser Arg Ala Ser Glu	Ser		
	185	190	195		
Ser Ala Ser Ser	Asp Gly Pro His Pro	Val Ile Thr Pro Ser	Arg		
	200	205	210		
Ala Ser Glu Ser	Ser Ala Ser Ser Asp	Gly Pro His Pro Val	Ile		
	215	220	225		
Thr Pro Ser Trp	Ser Pro Gly Ser Asp	Val Thr Leu Leu Ala	Glu		
	230	235	240		
Ala Leu Val Thr	Val Thr Asn Ile Glu	Val Ile Asn Cys Ser	Ile		
	245	250	255		
Thr Glu Ile Glu	Thr Thr Thr Ser Ser	Ile Pro Gly Ala Ser	Asp		
	260	265	270		
Ile Asp Leu Ile	Pro Thr Glu Gly Val	Lys Ala Ser Ser Thr	Ser		
	275	280	285		
Asp Pro Pro Ala	Leu Pro Asp Ser Thr	Glu Ala Lys Pro His	Ile		
	290	295	300		
Thr Glu Val Thr	Ala Ser Ala Glu Thr	Leu Ser Thr Ala Gly	Thr		
	305	310	315		

Thr Glu Ser Ala Ala Pro His Ala Thr Val Gly Thr Pro Leu Pro
320 325 330

Thr Asn Ser Ala Thr Glu Arg Glu Val Thr Ala Pro Gly Ala Thr
335 340 345

Thr Leu Ser Gly Ala Leu Val Thr Val Ser Arg Asn Pro Leu Glu
350 355 360

Glu Thr Ser Ala Leu Ser Val Glu Thr Pro Ser Tyr Val Lys Val
365 370 375

Ser Gly Ala Ala Pro Val Ser Ile Glu Ala Gly Ser Ala Val Gly
380 385 390

Lys Thr Thr Ser Phe Ala Gly Ser Ser Ala Ser Ser Tyr Ser Pro
395 400 405

Ser Glu Ala Ala Leu Lys Asn Phe Thr Pro Ser Glu Thr Pro Thr
410 415 420

Met Asp Ile Ala Thr Lys Gly Pro Phe Pro Thr Ser Arg Asp Pro
425 430 435

Leu Pro Ser Val Pro Pro Thr Thr Thr Asn Ser Ser Arg Gly Thr
440 445 450

Asn Ser Thr Leu Ala Lys Ile Thr Thr Ser Ala Lys Thr Thr Met
455 460 465

Lys Pro Gln Gln Pro Arg Pro Arg Leu Pro Gly Arg Gly Arg Pro
470 475 480

Gln Thr

<210> 64
<211> 1252
<212> DNA
<213> Homo Sapien

<400> 64
gcctctgaat tggtgggcag tctggcagtg gagctctccc cggtctgaca 50
gccactccag aggccatgct tcgttttcttg ccagatttgg ctttcagctt 100
cctgttaatt ctggccttgg gccaggcagt ccaatttcaa gaatatgtct 150
ttctccaatt tctgggctta gataaggcgc cttcacccca gaagttccaa 200
cctgtgcctt atatcttgaa gaaaattttc caggatcgcg aggcagcagc 250
gaccactggg gtctcccagag acttatgcta cgtaaaggag ctgggcgtcc 300
gcgggaatgt acttcgcttt ctcccagacc aagggttctt tctttaccca 350
aagaaaattt cccaagcttc ctctgcctg cagaagctcc tctactttaa 400

cctgtctgcc atcaaagaaa gggaacagtt gacattggcc cagctgggcc 450
 tggacttggg gcccaattct tactataacc tgggaccaga gctggaactg 500
 gctctgttcc tggttcagga gcctcatgtg tggggccaga ccaccctaa 550
 gccaggtaaa atgtttgtgt tgcggtcagt cccatggcca caaggtgctg 600
 ttcacttcaa cctgctggat gtagctaagg attggaatga caacccccgg 650
 aaaaatttcg gggtattcct ggagatactg gtcaaagaag atagagactc 700
 aggggtgaat tttcagcctg aagacacctg tgccagacta agatgctccc 750
 ttcattgctc cctgctgggtg gtgactctca accctgatca gtgccaccct 800
 tctcggaaaa ggagagcagc catccctgtc cccaagcttt cttgtaagaa 850
 cctctgccac cgtcaccagc tattcattaa cttccgggac ctgggttggc 900
 acaagtggat cattgcccc aaggggttca tggcaaatta ctgccatgga 950
 gagtgtccct tctcactgac catctctctc aacagctcca attatgcttt 1000
 catgcaagcc ctgatgcatg ccgttgaccc agagatcccc caggctgtgt 1050
 gtatccccac caagctgtct cccatttcca tgctctacca ggacaataat 1100
 gacaatgtca ttctacgaca ttatgaagac atggtagtcg atgaatgtgg 1150
 gtgtgggtag gatgtcagaa atgggaatag aaggagtgtt cttagggtaa 1200
 atcttttaat aaaactacct atctggttta tgaccactta gatcgaaatg 1250
 tc 1252

<210> 65
 <211> 364
 <212> PRT
 <213> Homo Sapien

<400> 65
 Met Leu Arg Phe Leu Pro Asp Leu Ala Phe Ser Phe Leu Leu Ile
 1 5 10 15
 Leu Ala Leu Gly Gln Ala Val Gln Phe Gln Glu Tyr Val Phe Leu
 20 25 30
 Gln Phe Leu Gly Leu Asp Lys Ala Pro Ser Pro Gln Lys Phe Gln
 35 40 45
 Pro Val Pro Tyr Ile Leu Lys Lys Ile Phe Gln Asp Arg Glu Ala
 50 55 60
 Ala Ala Thr Thr Gly Val Ser Arg Asp Leu Cys Tyr Val Lys Glu
 65 70 75
 Leu Gly Val Arg Gly Asn Val Leu Arg Phe Leu Pro Asp Gln Gly

				80					85					90
Phe	Phe	Leu	Tyr	Pro	Lys	Lys	Ile	Ser	Gln	Ala	Ser	Ser	Cys	Leu
				95					100					105
Gln	Lys	Leu	Leu	Tyr	Phe	Asn	Leu	Ser	Ala	Ile	Lys	Glu	Arg	Glu
				110					115					120
Gln	Leu	Thr	Leu	Ala	Gln	Leu	Gly	Leu	Asp	Leu	Gly	Pro	Asn	Ser
				125					130					135
Tyr	Tyr	Asn	Leu	Gly	Pro	Glu	Leu	Glu	Leu	Ala	Leu	Phe	Leu	Val
				140					145					150
Gln	Glu	Pro	His	Val	Trp	Gly	Gln	Thr	Thr	Pro	Lys	Pro	Gly	Lys
				155					160					165
Met	Phe	Val	Leu	Arg	Ser	Val	Pro	Trp	Pro	Gln	Gly	Ala	Val	His
				170					175					180
Phe	Asn	Leu	Leu	Asp	Val	Ala	Lys	Asp	Trp	Asn	Asp	Asn	Pro	Arg
				185					190					195
Lys	Asn	Phe	Gly	Leu	Phe	Leu	Glu	Ile	Leu	Val	Lys	Glu	Asp	Arg
				200					205					210
Asp	Ser	Gly	Val	Asn	Phe	Gln	Pro	Glu	Asp	Thr	Cys	Ala	Arg	Leu
				215					220					225
Arg	Cys	Ser	Leu	His	Ala	Ser	Leu	Leu	Val	Val	Thr	Leu	Asn	Pro
				230					235					240
Asp	Gln	Cys	His	Pro	Ser	Arg	Lys	Arg	Arg	Ala	Ala	Ile	Pro	Val
				245					250					255
Pro	Lys	Leu	Ser	Cys	Lys	Asn	Leu	Cys	His	Arg	His	Gln	Leu	Phe
				260					265					270
Ile	Asn	Phe	Arg	Asp	Leu	Gly	Trp	His	Lys	Trp	Ile	Ile	Ala	Pro
				275					280					285
Lys	Gly	Phe	Met	Ala	Asn	Tyr	Cys	His	Gly	Glu	Cys	Pro	Phe	Ser
				290					295					300
Leu	Thr	Ile	Ser	Leu	Asn	Ser	Ser	Asn	Tyr	Ala	Phe	Met	Gln	Ala
				305					310					315
Leu	Met	His	Ala	Val	Asp	Pro	Glu	Ile	Pro	Gln	Ala	Val	Cys	Ile
				320					325					330
Pro	Thr	Lys	Leu	Ser	Pro	Ile	Ser	Met	Leu	Tyr	Gln	Asp	Asn	Asn
				335					340					345
Asp	Asn	Val	Ile	Leu	Arg	His	Tyr	Glu	Asp	Met	Val	Val	Asp	Glu
				350					355					360
Cys	Gly	Cys	Gly											

<210> 66
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 66
 gtctgacagc cactccagag 20

<210> 67
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 67
 tctccaattt ctgggcttag ataaggcgcc ttcaccccag aagttcc 47

<210> 68
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 68
 gtcccaggtt atagtaagaa ttgg 24

<210> 69
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 69
 gtgttgcggt cagtcccatg 20

<210> 70
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 70
 gctgtctccc atttccatgc 20

<210> 71
 <211> 24
 <212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 71

cgactaccat gtcttcataa tgtc 24

<210> 72

<211> 2849

<212> DNA

<213> Homo Sapien

<400> 72

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 ggtcgcagag acctcggaga ccgcgccggg gagacggagg tgctgtgggt 100
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 tgccgtcctc cggaagacct ttccccctgc tctgtttcct tcaccgagtc 200
 tgtgcatcgc cccggacctg gccgggagga ggcttggccg gcgggagatg 250
 ctctaggggc ggcgcgggag gagcggccgg cgggacggag ggcccggcag 300
 gaagatgggc tcccgtggac agggactctt gctggcgtag tgccctgctcc 350
 ttgcctttgc ctctggcctg gtccctgagtc gtgtgccccca tgtccagggg 400
 gaacagcagg agtgggaggg gactgaggag ctgccgtcgc ctccggacca 450
 tgccgagagg gctgaagaac aacatgaaaa atacaggccc agtcaggacc 500
 aggggctccc tgcttcccgg tgcttgcgct gctgtgaccc cggtacctcc 550
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 caggctcagc agggggccagg ggccacactg gacccaaagg gcagaagggc 700
 tccatggggg cccctgggga gcggtgcaag agccactacg ccgccttttc 750
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 agccagagcc tgatgctgga gctgcgagag caggaccagg tgtgggtacg 1050
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ggcggggcac	ccgcgagaac	cctctgggac	cttccgcggc	cctctctgca	1400
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cccaggggtgc	ggcaccgcgg	ctccagtcct	tggaaataat	taggcaaatt	1500
ctaaaggtct	caaaaggagc	aaagtaaacc	gtggaggaca	aagaaaaggg	1550
ttgttatttt	tgtctttcca	gccagcctgc	tggctcccaa	gagagaggcc	1600
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tgggggctgg	ggccccaggc	gtcagcctcc	cagagggaca	gctgagcccc	1850
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ggattcactc	tcaggagctg	ggtggcagga	gaggcaatag	ccctgtggc	2450
aattgcagga	ccagctggag	cagggttgcg	gtgtctccac	ggtgctctcg	2500
ccctgcccac	ggccacccca	gactctgata	tccaggaacc	ccatagcccc	2550

200	205	210
Ile Met Lys Asn Glu Glu Glu Val Val	Ile Leu Phe Ala Gln Val	
215	220	225
Gly Asp Arg Ser Ile Met Gln Ser Gln	Ser Leu Met Leu Glu Leu	
230	235	240
Arg Glu Gln Asp Gln Val Trp Val Arg	Leu Tyr Lys Gly Glu Arg	
245	250	255
Glu Asn Ala Ile Phe Ser Glu Glu Leu	Asp Thr Tyr Ile Thr Phe	
260	265	270
Ser Gly Tyr Leu Val Lys His Ala Thr	Glu Pro	
275	280	

<210> 74
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 74
 tacaggccca gtcaggacca gggg 24

<210> 75
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 75
 ctgaagaagt agaggccggg cacg 24

<210> 76
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 76
 cccggtgctt gcgctgctgt gaccccggtta cctccatgta cccgg 45

<210> 77
 <211> 1042
 <212> DNA
 <213> Homo Sapien

<400> 77
 gaattcggca cgaggggaaga agagaaagaa aatctccggg gctgctggga 50

Glu	Val	Ile	Ala	Val	Pro	Lys	Asn	Gly	Ser	Met	Ile	Cys	Leu	Asp
				65					70					75
Pro	Asp	Ala	Pro	Trp	Val	Lys	Ala	Thr	Val	Gly	Pro	Ile	Thr	Asn
				80					85					90
Arg	Phe	Leu	Pro	Glu	Asp	Leu	Lys	Gln	Lys	Glu	Phe	Pro	Pro	Ala
				95					100					105
Met	Lys	Leu	Leu	Tyr	Ser	Val	Glu	His	Glu	Lys	Pro	Leu	Tyr	Leu
				110					115					120
Ser	Phe	Gly	Arg	Pro	Glu	Asn	Lys	Arg	Ile	Phe	Pro	Phe	Pro	Ile
				125					130					135
Arg	Glu	Thr	Ser	Arg	His	Phe	Ala	Asp	Leu	Ala	His	Asn	Ser	Asp
				140					145					150
Arg	Asn	Phe	Leu	Arg	Asp	Ser	Ser	Glu	Val	Ser	Leu	Thr	Gly	Ser
				155					160					165

Asp Ala

<210> 79
 <211> 798
 <212> DNA
 <213> Homo Sapien

<220>
 <221> unsure
 <222> 794
 <223> unknown base

<400> 79
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 tttggcatcc ccaggaccca aggcagtgat ggaggggctc aggactgttg 100
 cctcaagtac agccaaagga agattcccg ccaagggtgtc cgcagctacc 150
 ggaagcagga accaagctta ggctgctcca tcccagctat cctgttcttg 200
 ccccgcaagc gctctcaggc agagctatgt gcagacccaa aggagctctg 250
 ggtgcagcag ctgatgcagc atctggacaa gacaccatcc ccacagaaac 300
 cagcccaggg ctgcaggaag gacagggggg cctccaagac tggcaagaaa 350
 ggaaagggt ccaaaggctg caagaggact gagcggtcac agaccctaa 400
 agggccatag ccagtgagc agcctggagc cctggagacc ccaccagcct 450
 caccagcgct tgaagcctga acccaagatg caagaaggag gctatgctca 500
 ggggccctgg agcagccacc ccatgctggc cttgccacac tctttctcct 550
 gctttaacca ccccatctgc attcccagct ctaccctgca tggctgagct 600

gcccacagca ggccagggtcc agagagaccg aggagggaga gtctcccagg 650
gagcatgaga ggaggcagca ggactgtccc cttgaaggag aatcatcagg 700
accctggacc tgatacggct cccagtaga cccacctct tccttgtaaa 750
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<210> 80
<211> 134
<212> PRT
<213> Homo Sapien

<400> 80
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Phe Gly Ile Pro Arg Thr Gln Gly Ser Asp Gly Gly Ala Gln Asp
20 25 30
Cys Cys Leu Lys Tyr Ser Gln Arg Lys Ile Pro Ala Lys Val Val
35 40 45
Arg Ser Tyr Arg Lys Gln Glu Pro Ser Leu Gly Cys Ser Ile Pro
50 55 60
Ala Ile Leu Phe Leu Pro Arg Lys Arg Ser Gln Ala Glu Leu Cys
65 70 75
Ala Asp Pro Lys Glu Leu Trp Val Gln Gln Leu Met Gln His Leu
80 85 90
Asp Lys Thr Pro Ser Pro Gln Lys Pro Ala Gln Gly Cys Arg Lys
95 100 105
Asp Arg Gly Ala Ser Lys Thr Gly Lys Lys Gly Lys Gly Ser Lys
110 115 120
Gly Cys Lys Arg Thr Glu Arg Ser Gln Thr Pro Lys Gly Pro
125 130

<210> 81
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
agacatggct cagtcactgg 20

<210> 82
<211> 19
<212> DNA
<213> Artificial Sequence

<220>

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Arg Ala Ile Gln Ala Lys Asp Thr Phe Pro Asn Val Thr Ile Leu
50 55 60
Ser Thr Leu Glu Thr Leu Gln Ile Ile Lys Pro Leu Asp Val Cys
65 70 75
Cys Val Thr Lys Asn Leu Leu Ala Phe Tyr Val Asp Arg Val Phe
80 85 90
Lys Asp His Gln Glu Pro Asn Pro Lys Ile Leu Arg Lys Ile Ser
95 100 105
Ser Ile Ala Asn Ser Phe Leu Tyr Met Gln Lys Thr Leu Arg Gln
110 115 120
Cys Gln Glu Gln Arg Gln Cys His Cys Arg Gln Glu Ala Thr Asn
125 130 135
Ala Thr Arg Val Ile His Asp Asn Tyr Asp Gln Leu Glu Val His
140 145 150
Ala Ala Ala Ile Lys Ser Leu Gly Glu Leu Asp Val Phe Leu Ala
155 160 165
Trp Ile Asn Lys Asn His Glu Val Met Phe Ser Ala
170 175

<210> 85
<211> 2137
<212> DNA
<213> Homo Sapien

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tgggcggggt caccgccgct gggacaagaa gccgccgcct gcctgcccgg 150
gcccggggag ggggctgggg ctggggccgg aggcgggggtg tgagtgggtg 200
tgtgcggggg gcggaggctt gatgcaatcc cgataagaaa tgctcgggtg 250
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gtcgccgccc agcctcccgc acccccatcg ccggagctgc gccgagagcc 450
ccagggaggt gccatgcgga gcgggtgtgt ggtggtccac gtatggatcc 500

tggcggcct ctggctggcc gtggccgggc gccccctcgc cttctcggac 550
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 ttctgctccc tcgaggttgc tggacaagct gctgcactgt ctcaagtctg 1400
 cttgaatacc tccatcgatg gggaaactcac ttcctttgga aaaattctta 1450
 tgtcaagctg aaattctcta attttttctc atcacttccc caggagcagc 1500
 cagaagacag gcagtagttt taatttcagg aacaggatgat ccactctgta 1550
 aaacagcagg taaatttcac tcaaccccat gtgggaattg atctatatct 1600
 ctacttccag ggaccatttg cccttcccaa atccctccag gccagaactg 1650
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 cccactcca gccctgggac aacttgagaa tccccctga ggccagttct 1750
 gtcattgatg ctgtcctgag aataacttgc tgtcccgggtg tcacctgctt 1800
 ccatctcca gccaccagc cctctgcca cctcacatgc ctcccatgg 1850
 attggggcct ccaggcccc ccaccttatg tcaacctgca cttcttgctc 1900
 aaaaatcagg aaaagaaaag atttgaagac cccaagtctt gtcaataact 1950

<210> 87
 <211> 26
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 87
 atccgcccag atggctacaa tgtgta 26

<210> 88
 <211> 42
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 88
 gcctcccggg ctccctgagc agtgccaaac agcggcagtg ta 42

<210> 89
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 89
 ccagtccggg gacaagccca aa 22

<210> 90
 <211> 1857
 <212> DNA
 <213> Homo Sapien

<400> 90
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 gatggggaca aaggcgcaag tcgagaggaa actgttgtgc ctcttcatat 100
 tggcgatcct gttgtgctcc ctggcattgg gcagtgttac agtgcaactct 150
 tctgaacctg aagtcagaat tcctgagaat aatcctgtga agttgtcctg 200
 tgcctactcg ggcttttctt ctccccgtgt ggagtgggaag tttgaccaag 250
 gagacaccac cagactcggt tgctataata acaagatcac agcttcctat 300
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 acagctatgg ggaggtcaag gtcaagctca tcgtgcttgt gcctccatcc 450
 aagcctacag ttaacatccc ctctctgcc accattggga accgggcagt 500

$\frac{1}{\sqrt{\pi}} \int_{-\infty}^{\infty} f(x) \delta(x-a) dx = f(a)$

<212> PRT

<213> Homo Sapien

<400> 91

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Val	His	Ser	Ser	Glu 35	Pro	Glu	Val	Arg	Ile 40	Pro	Glu	Asn	Asn	Pro 45
Val	Lys	Leu	Ser	Cys 50	Ala	Tyr	Ser	Gly	Phe 55	Ser	Ser	Pro	Arg	Val 60
Glu	Trp	Lys	Phe	Asp 65	Gln	Gly	Asp	Thr	Thr 70	Arg	Leu	Val	Cys	Tyr 75
Asn	Asn	Lys	Ile	Thr 80	Ala	Ser	Tyr	Glu	Asp 85	Arg	Val	Thr	Phe	Leu 90
Pro	Thr	Gly	Ile	Thr 95	Phe	Lys	Ser	Val	Thr 100	Arg	Glu	Asp	Thr	Gly 105
Thr	Tyr	Thr	Cys	Met 110	Val	Ser	Glu	Glu	Gly 115	Gly	Asn	Ser	Tyr	Gly 120
Glu	Val	Lys	Val	Lys 125	Leu	Ile	Val	Leu	Val 130	Pro	Pro	Ser	Lys	Pro 135
Thr	Val	Asn	Ile	Pro 140	Ser	Ser	Ala	Thr	Ile 145	Gly	Asn	Arg	Ala	Val 150
Leu	Thr	Cys	Ser	Glu 155	Gln	Asp	Gly	Ser	Pro 160	Pro	Ser	Glu	Tyr	Thr 165
Trp	Phe	Lys	Asp	Gly 170	Ile	Val	Met	Pro	Thr 175	Asn	Pro	Lys	Ser	Thr 180
Arg	Ala	Phe	Ser	Asn 185	Ser	Ser	Tyr	Val	Leu 190	Asn	Pro	Thr	Thr	Gly 195
Glu	Leu	Val	Phe	Asp 200	Pro	Leu	Ser	Ala	Ser 205	Asp	Thr	Gly	Glu	Tyr 210
Ser	Cys	Glu	Ala	Arg 215	Asn	Gly	Tyr	Gly	Thr 220	Pro	Met	Thr	Ser	Asn 225
Ala	Val	Arg	Met	Glu 230	Ala	Val	Glu	Arg	Asn 235	Val	Gly	Val	Ile	Val 240
Ala	Ala	Val	Leu	Val 245	Thr	Leu	Ile	Leu	Leu 250	Gly	Ile	Leu	Val	Phe 255
Gly	Ile	Trp	Phe	Ala 260	Tyr	Ser	Arg	Gly	His 265	Phe	Asp	Arg	Thr	Lys 270

Lys Gly Thr Ser Ser Lys Lys Val Ile Tyr Ser Gln Pro Ser Ala
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Arg Ser Glu Gly Glu Phe Lys Gln Thr Ser Ser Phe Leu Val
290 295

<210> 92
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 92
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<210> 93
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 93
tgatcgcgat ggggacaaag gcgcaagctc gagaggaaac tgttgtgcct 50

<210> 94
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 94
acacctgggtt caaagatggg 20

<210> 95
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 95
taggaagagt tgctgaaggc acgg 24

<210> 96
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 96
ttgccttact caggtgctac 20

<210> 97
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 97
actcagcagt ggtaggaaag 20

<210> 98
<211> 1200
<212> DNA
<213> Homo Sapien

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gtgagggacc agggcgccat gaccgaccag ctgagcaggc ggcagatccg 150
cgagtaccaa ctctacagca ggaccagtgg caagcacgtg caggtcaccg 200
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aaccacgccc agaagcagaa gcagttcgag tttgtgggct ccgccccac 600
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<210> 100
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 100
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<210> 101
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 101
 ccggtgacct gcacgtgctt gccca 24

<210> 102
 <211> 41
 <212> DNA
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<220>
 <223> Synthetic oligonucleotide probe

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 <222> 21
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<400> 102
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<210> 103
 <211> 1679
 <212> DNA
 <213> Homo Sapien

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 aaaaatgcac aattctatct cttgggcaat cttcacgggg ctggctgctc 200
 tgtgtctctt ccaaggagtg cccgtgcgca gcggagatgc caccttcccc 250
 aaagctatgg acaacgtgac ggtccggcag ggggagagcg ccaccctcag 300
 gtgcactatt gacaaccggg tcaccgggt ggctggcta aaccgcagca 350

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ccatcctcta tgctgggaat gacaagtggg gcctggatcc tcgctgggtc 400
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caatcagata tatacaaatt aaattagaag aaacacagcc tcatgggaca 1300
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<210> 104
 <211> 344
 <212> PRT
 <213> Homo Sapien

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Pro	Gly	His	Ser	Gly	Ala	Trp	Glu	Thr	Ser	Gly	Gly	His	Gly	Ile
				140					145					150
Phe	Gly	Ser	Gln	Gly	Gly	Leu	Gly	Gly	Gln	Gly	Gln	Gly	Asn	Pro
				155					160					165
Gly	Gly	Leu	Gly	Thr	Pro	Trp	Val	His	Gly	Tyr	Pro	Gly	Asn	Ser
				170					175					180
Ala	Gly	Ser	Phe	Gly	Met	Asn	Pro	Gln	Gly	Ala	Pro	Trp	Gly	Gln
				185					190					195
Gly	Gly	Asn	Gly	Gly	Pro	Pro	Asn	Phe	Gly	Thr	Asn	Thr	Gln	Gly
				200					205					210
Ala	Val	Ala	Gln	Pro	Gly	Tyr	Gly	Ser	Val	Arg	Ala	Ser	Asn	Gln
				215					220					225
Asn	Glu	Gly	Cys	Thr	Asn	Pro	Pro	Pro	Ser	Gly	Ser	Gly	Gly	Gly
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Ser	Ser	Asn	Ser	Gly	Gly	Gly	Ser	Gly	Ser	Gln	Ser	Gly	Ser	Ser
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Gly	Ser	Ser	Ser	Gly	Ser	Ser	Ser	Gly	Ser	Ser	Ser	Gly	Gly	Ser
				275					280					285
Ser	Gly	Gly	Ser	Ser	Gly	Gly	Ser	Ser	Gly	Asn	Ser	Gly	Gly	Ser
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Arg	Gly	Asp	Ser	Gly	Ser	Glu	Ser	Ser	Trp	Gly	Ser	Ser	Thr	Gly
				305					310					315
Ser	Ser	Ser	Gly	Asn	His	Gly	Gly	Ser	Gly	Gly	Gly	Asn	Gly	His
				320					325					330
Lys	Pro	Gly	Cys	Glu	Lys	Pro	Gly	Asn	Glu	Ala	Arg	Gly	Ser	Gly
				335					340					345
Glu	Ser	Gly	Ile	Gln	Gly	Phe	Arg	Gly	Gln	Gly	Val	Ser	Ser	Asn
				350					355					360
Met	Arg	Glu	Ile	Ser	Lys	Glu	Gly	Asn	Arg	Leu	Leu	Gly	Gly	Ser
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Gly	Asp	Asn	Tyr	Arg	Gly	Gln	Gly	Ser	Ser	Trp	Gly	Ser	Gly	Gly
				380					385					390
Gly	Asp	Ala	Val	Gly	Gly	Val	Asn	Thr	Val	Asn	Ser	Glu	Thr	Ser
				395					400					405

Pro Gly Met Phe Asn Phe Asp Thr Phe Trp Lys Asn Phe Lys Ser
410 415 420

Lys Leu Gly Phe Ile Asn Trp Asp Ala Ile Asn Lys Asp Gln Arg
425 430 435

Ser Ser Arg Ile Pro
440

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<211> 918
<212> DNA
<213> Homo Sapien

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ctgcgctctg cctgacaggg tcccaagccc tgcagtgcta cagctttgag 150
cacacctact ttggcccctt tgacctcagg gccatgaagc tgcccagcat 200
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aaagtaagaa ttgcaaaa 918

<210> 108
<211> 251
<212> PRT
<213> Homo Sapien

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Phe	Glu	His	Thr	Tyr	Phe	Gly	Pro	Phe	Asp	Leu	Arg	Ala	Met	Lys
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Leu	Pro	Ser	Ile	Ser	Cys	Pro	His	Glu	Cys	Phe	Glu	Ala	Ile	Leu
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Ser	Leu	Asp	Thr	Gly	Tyr	Arg	Ala	Pro	Val	Thr	Leu	Val	Arg	Lys
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Asp	Ala	Leu	Pro	Pro	Asp	Tyr	Ser	Val	Val	Arg	Gly	Cys	Thr	Thr
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Asp	Lys	Cys	Asn	Ala	His	Leu	Met	Thr	His	Asp	Ala	Leu	Pro	Asn
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Tyr	Ala	Cys	Ile	Gly	Val	His	Gln	Asp	Asp	Cys	Ala	Ile	Gly	Arg
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Gly	Ser	Gly	Arg	Met	Thr	Val	Gly	Asn	Phe	Ser	Val	Pro	Val	Tyr
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Ile	Arg	Thr	Cys	His	Arg	Pro	Ser	Cys	Thr	Thr	Glu	Gly	Thr	Thr
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Ser	Pro	Trp	Thr	Ala	Ile	Asp	Leu	Gln	Gly	Ser	Cys	Cys	Glu	Gly
				200					205					210
Tyr	Leu	Cys	Asn	Arg	Lys	Ser	Met	Thr	Gln	Pro	Phe	Thr	Ser	Ala
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Ser	Ala	Thr	Thr	Pro	Pro	Arg	Ala	Leu	Gln	Val	Leu	Ala	Leu	Leu
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<211> 1813

<212> DNA

<213> Homo Sapien

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tttgtatgaa aaa 1813

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<213> Homo Sapien

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35 40 45
Gly Glu Val Val Leu Pro Ala Trp Tyr Thr Leu His Gly Glu Val
50 55 60
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65 70 75
Lys Gln Lys Glu Lys Glu Asp Gln Val Leu Ser Tyr Ile Asn Gly
80 85 90
Val Thr Thr Ser Lys Pro Gly Val Ser Leu Val Tyr Ser Met Pro
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Ser Arg Asn Leu Ser Leu Arg Leu Glu Gly Leu Gln Glu Lys Asp
110 115 120
Ser Gly Pro Tyr Ser Cys Ser Val Asn Val Gln Asp Lys Gln Gly
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Lys Ser Arg Gly His Ser Ile Lys Thr Leu Glu Leu Asn Val Leu
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Val Gly Ala Asn Val Thr Leu Ser Cys Gln Ser Pro Arg Ser Lys
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Ala	His	Asn	Glu	Val	Gly	Thr	Ala	Gln	Cys	Asn	Val	Thr	Leu	Glu
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Tyr	His	Arg	Arg	Gly	Lys	Ala	Leu	Glu	Glu	Pro	Ala	Asn	Asp	Ile
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Lys	Glu	Asp	Ala	Ile	Ala	Pro	Arg	Thr	Leu	Pro	Trp	Pro	Lys	Ser
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Ser	Asp	Thr	Ile	Ser	Lys	Asn	Gly	Thr	Leu	Ser	Ser	Val	Thr	Ser
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Ala	Arg	Ala	Leu	Arg	Pro	Pro	His	Gly	Pro	Pro	Arg	Pro	Gly	Ala
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Leu	Thr	Pro	Thr	Pro	Ser	Leu	Ser	Ser	Gln	Ala	Leu	Pro	Ser	Pro
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Arg	Leu	Pro	Thr	Thr	Asp	Gly	Ala	His	Pro	Gln	Pro	Ile	Ser	Pro
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Ile	Pro	Gly	Gly	Val	Ser	Ser	Ser	Gly	Leu	Ser	Arg	Met	Gly	Ala
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

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<210> 112
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<212> PRT

<213> Homo Sapien

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35 40 45

Phe Val Tyr Cys Asn Glu Arg Ser Leu Thr Ser Val Pro Leu Gly
50 55 60

Ile Pro Glu Gly Val Thr Val Leu Tyr Leu His Asn Asn Gln Ile
65 70 75

Asn Asn Ala Gly Phe Pro Ala Glu Leu His Asn Val Gln Ser Val
80 85 90

His Thr Val Tyr Leu Tyr Gly Asn Gln Leu Asp Glu Phe Pro Met
95 100 105

Asn Leu Pro Lys Asn Val Arg Val Leu His Leu Gln Glu Asn Asn
110 115 120

Ile Gln Thr Ile Ser Arg Ala Ala Leu Ala Gln Leu Leu Lys Leu
125 130 135

Glu Glu Leu His Leu Asp Asp Asn Ser Ile Ser Thr Val Gly Val
140 145 150

Glu Asp Gly Ala Phe Arg Glu Ala Ile Ser Leu Lys Leu Leu Phe
155 160 165

Leu Ser Lys Asn His Leu Ser Ser Val Pro Val Gly Leu Pro Val
170 175 180

Asp Leu Gln Glu Leu Arg Val Asp Glu Asn Arg Ile Ala Val Ile
185 190 195

Ser Asp Met Ala Phe Gln Asn Leu Thr Ser Leu Glu Arg Leu Ile
200 205 210

Val Asp Gly Asn Leu Leu Thr Asn Lys Gly Ile Ala Glu Gly Thr
215 220 225

Phe Ser His Leu Thr Lys Leu Lys Glu Phe Ser Ile Val Arg Asn

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Ser	Leu	Asn	Val	Arg 335	Gly	Phe	Met	Cys	Gln 340	Gly	Pro	Glu	Gln	Val 345
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Pro	Thr	Thr	Thr	Pro 365	Gly	Leu	Pro	Leu	Phe 370	Thr	Pro	Ala	Pro	Ser 375
Thr	Ala	Ser	Pro	Thr 380	Thr	Gln	Pro	Pro	Thr 385	Leu	Ser	Ile	Pro	Asn 390
Pro	Ser	Arg	Ser	Tyr 395	Thr	Pro	Pro	Thr	Pro 400	Thr	Thr	Ser	Lys	Leu 405
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Ile	Ser	Glu	Arg	Ile 425	Gln	Leu	Ser	Ile	His 430	Phe	Val	Asn	Asp	Thr 435
Ser	Ile	Gln	Val	Ser 440	Trp	Leu	Ser	Leu	Phe 445	Thr	Val	Met	Ala	Tyr 450
Lys	Leu	Thr	Trp	Val 455	Lys	Met	Gly	His	Ser 460	Leu	Val	Gly	Gly	Ile 465
Val	Gln	Glu	Arg	Ile 470	Val	Ser	Gly	Glu	Lys 475	Gln	His	Leu	Ser	Leu 480
Val	Asn	Leu	Glu	Pro 485	Arg	Ser	Thr	Tyr	Arg 490	Ile	Cys	Leu	Val	Pro 495
Leu	Asp	Ala	Phe	Asn 500	Tyr	Arg	Ala	Val	Glu 505	Asp	Thr	Ile	Cys	Ser 510
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Lys	Met	Asp	Arg	Glu 215	Leu	Gln	Asp	Glu	Tyr 220	Trp	Val	Ile	Ile	Gln 225
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Ser	Val	Leu	Ile	Lys 245	Leu	Ser	Asp	Val	Asn 250	Asp	Asn	Lys	Pro	Ile 255
Phe	Lys	Glu	Ser	Leu 260	Tyr	Arg	Leu	Thr	Val 265	Ser	Glu	Ser	Ala	Pro 270
Thr	Gly	Thr	Ser	Ile 275	Gly	Thr	Ile	Met	Ala 280	Tyr	Asp	Asn	Asp	Ile 285
Gly	Glu	Asn	Ala	Glu 290	Met	Asp	Tyr	Ser	Ile 295	Glu	Glu	Asp	Asp	Ser 300
Gln	Thr	Phe	Asp	Ile 305	Ile	Thr	Asn	His	Glu 310	Thr	Gln	Glu	Gly	Ile 315
Val	Ile	Leu	Lys	Lys 320	Lys	Val	Asp	Phe	Glu 325	His	Gln	Asn	His	Tyr 330
Gly	Ile	Arg	Ala	Lys 335	Val	Lys	Asn	His	His 340	Val	Pro	Glu	Gln	Leu 345
Met	Lys	Tyr	His	Thr 350	Glu	Ala	Ser	Thr	Thr 355	Phe	Ile	Lys	Ile	Gln 360
Val	Glu	Asp	Val	Asp 365	Glu	Pro	Pro	Leu	Phe 370	Leu	Leu	Pro	Tyr	Tyr 375
Val	Phe	Glu	Val	Phe 380	Glu	Glu	Thr	Pro	Gln 385	Gly	Ser	Phe	Val	Gly 390
Val	Val	Ser	Ala	Thr 395	Asp	Pro	Asp	Asn	Arg 400	Lys	Ser	Pro	Ile	Arg 405
Tyr	Ser	Ile	Thr	Arg 410	Ser	Lys	Val	Phe	Asn 415	Ile	Asn	Asp	Asn	Gly 420
Thr	Ile	Thr	Thr	Ser 425	Asn	Ser	Leu	Asp	Arg 430	Glu	Ile	Ser	Ala	Trp 435
Tyr	Asn	Leu	Ser	Ile 440	Thr	Ala	Thr	Glu	Lys 445	Tyr	Asn	Ile	Glu	Gln 450
Ile	Ser	Ser	Ile	Pro 455	Leu	Tyr	Val	Gln	Val 460	Leu	Asn	Ile	Asn	Asp 465

[illegible]

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 gagcaaagct gaaaaatgaa taactaacc cctttccctg ctagaaataa 650
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 <212> PRT
 <213> Homo Sapien

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 35 40 45
 Asn Phe Gln Gln Pro Tyr Ile Thr Asn Arg Thr Phe Met Leu Ala
 50 55 60
 Lys Glu Ala Ser Leu Ala Asp Asn Asn Thr Asp Val Arg Leu Ile
 65 70 75
 Gly Glu Lys Leu Phe His Gly Val Ser Met Ser Glu Arg Cys Tyr

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Leu	Met	Lys	Gln	Val	Leu	Asn	Phe	Thr	Leu	Glu	Glu	Val	Leu	Phe	
				95					100					105	
Pro	Gln	Ser	Asp	Arg	Phe	Gln	Pro	Tyr	Met	Gln	Glu	Val	Val	Pro	
				110					115					120	
Phe	Leu	Ala	Arg	Leu	Ser	Asn	Arg	Leu	Ser	Thr	Cys	His	Ile	Glu	
				125					130					135	
Gly	Asp	Asp	Leu	His	Ile	Gln	Arg	Asn	Val	Gln	Lys	Leu	Lys	Asp	
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Thr	Val	Lys	Lys	Leu	Gly	Glu	Ser	Gly	Glu	Ile	Lys	Ala	Ile	Gly	
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 <212> DNA
 <213> Homo Sapien

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 gccggggcca tccctagaca gaggaaagtt cctgcagagc cgaccagccc 200
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 acagaacaac accagtactg gtttacaggt gttaagacta aaattttgcc 2250

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Ser	Thr	Asn	His	Pro 275	Val	Lys	Val	Gly	Leu 280	Ser	Asp	Ala	Phe	Val 285
Val	Val	His	Arg	Ile 290	Gln	Gln	Ile	Pro	Asn 295	Val	Arg	Arg	Arg	Thr 300
Ile	Tyr	Glu	Tyr	His 305	Arg	Val	Glu	Leu	Gln 310	Met	Ser	Lys	Ile	Thr 315
Asn	Ile	Ser	Ala	Val 320	Glu	Met	Thr	Pro	Leu 325	Pro	Thr	Cys	Leu	Gln 330
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Cys	Ser	Trp	Cys	Ser 350	Lys	Leu	Gln	Arg	Cys 355	Ser	Ser	Gly	Phe	Asp 360
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Leu	Pro	Thr	Glu	Asp 425	Asp	Thr	Lys	Ile	Ala 430	Leu	His	Leu	Lys	Asp 435
Asn	Gly	Ala	Ser	Thr 440	Asp	Asp	Ser	Ala	Ala 445	Glu	Lys	Lys	Gly	Gly 450
Thr	Leu	His	Ala	Gly 455	Leu	Ile	Ile	Gly	Ile 460	Leu	Ile	Leu	Val	Leu 465
Ile	Val	Ala	Thr	Ala 470	Ile	Leu	Val	Thr	Val 475	Tyr	Met	Tyr	His	His 480
Pro	Thr	Ser	Ala	Ala	Ser	Ile	Phe	Phe	Ile	Glu	Arg	Arg	Pro	Ser

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Arg Trp Pro Ala Met Lys Phe Arg Arg Gly Ser Gly His Pro Ala					
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Tyr Ala Glu Val Glu Pro Val Gly Glu Lys Glu Gly Phe Ile Val					
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Ser Glu Gln Cys					

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 <212> DNA
 <213> Homo Sapien

<220>
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 <223> unknown base

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 ggaagatgga gcttcaaagg gtgcctggct gaaccgggtca agtattattt 250
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaa 4834

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 <211> 354
 <212> PRT
 <213> Homo Sapien

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 20 25 30
 Cys Leu Pro Ala Gly Gln Ser Val Asp Phe Pro Trp Ala Ala Val
 35 40 45
 Asp Asn Met Met Val Arg Lys Gly Asp Thr Ala Val Leu Arg Cys

				50					55					60	
Tyr	Leu	Glu	Asp	Gly	Ala	Ser	Lys	Gly	Ala	Trp	Leu	Asn	Arg	Ser	
				65					70					75	
Ser	Ile	Ile	Phe	Ala	Gly	Gly	Asp	Lys	Trp	Ser	Val	Asp	Pro	Arg	
				80					85					90	
Val	Ser	Ile	Ser	Thr	Leu	Asn	Lys	Arg	Asp	Tyr	Ser	Leu	Gln	Ile	
				95					100					105	
Gln	Asn	Val	Asp	Val	Thr	Asp	Asp	Gly	Pro	Tyr	Thr	Cys	Ser	Val	
				110					115					120	
Gln	Thr	Gln	His	Thr	Pro	Arg	Thr	Met	Gln	Val	His	Leu	Thr	Val	
				125					130					135	
Gln	Val	Pro	Pro	Lys	Ile	Tyr	Asp	Ile	Ser	Asn	Asp	Met	Thr	Val	
				140					145					150	
Asn	Glu	Gly	Thr	Asn	Val	Thr	Leu	Thr	Cys	Leu	Ala	Thr	Gly	Lys	
				155					160					165	
Pro	Glu	Pro	Ser	Ile	Ser	Trp	Arg	His	Ile	Ser	Pro	Ser	Ala	Lys	
				170					175					180	
Pro	Phe	Glu	Asn	Gly	Gln	Tyr	Leu	Asp	Ile	Tyr	Gly	Ile	Thr	Arg	
				185					190					195	
Asp	Gln	Ala	Gly	Glu	Tyr	Glu	Cys	Ser	Ala	Glu	Asn	Asp	Val	Ser	
				200					205					210	
Phe	Pro	Asp	Val	Arg	Lys	Val	Lys	Val	Val	Val	Asn	Phe	Ala	Pro	
				215					220					225	
Thr	Ile	Gln	Glu	Ile	Lys	Ser	Gly	Thr	Val	Thr	Pro	Gly	Arg	Ser	
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Gly	Leu	Ile	Arg	Cys	Glu	Gly	Ala	Gly	Val	Pro	Pro	Pro	Ala	Phe	
				245					250					255	
Glu	Trp	Tyr	Lys	Gly	Glu	Lys	Lys	Leu	Phe	Asn	Gly	Gln	Gln	Gly	
				260					265					270	
Ile	Ile	Ile	Gln	Asn	Phe	Ser	Thr	Arg	Ser	Ile	Leu	Thr	Val	Thr	
				275					280					285	
Asn	Val	Thr	Gln	Glu	His	Phe	Gly	Asn	Tyr	Thr	Cys	Val	Ala	Ala	
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Asn	Lys	Leu	Gly	Thr	Thr	Asn	Ala	Ser	Leu	Pro	Leu	Asn	Pro	Pro	
				305					310					315	
Ser	Thr	Ala	Gln	Tyr	Gly	Ile	Thr	Gly	Ser	Ala	Asp	Val	Leu	Phe	
				320					325					330	
Ser	Cys	Trp	Tyr	Leu	Val	Leu	Thr	Leu	Ser	Ser	Phe	Thr	Ser	Ile	
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Phe Tyr Leu Lys Asn Ala Ile Leu Gln
350

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 <211> 823
 <212> DNA
 <213> Homo Sapien

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 gcataattac gaggaagcag aacttctcca gaagcaagcg cacatgcgtt 200
 ccaaaataag agcaaattcg ctctaaacac aggaaaagac ctgaagcttt 250
 aattaagggg ttacatccaa cccagagcg cttttgtggg cactgattgc 300
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 gccaggaagg aagagcagca gcagggtggg agagaagctc cagtcagccc 500
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 <211> 155
 <212> PRT
 <213> Homo Sapien

<400> 132
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 20 25 30
 Gly Leu Pro Gly Arg Lys Ser Ser Ser Arg Val Gly Glu Lys Leu
 35 40 45

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<211> 24
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

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<211> 28
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

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<400> 134
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<210> 135
<211> 45
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

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<210> 136

<211> 1875

<212> DNA

<213> Homo Sapien

<400> 136

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cattctacag tgggagtcac ctgcttttgc caaagggaac ctgactttca 200
cagctcagta cctaagttat aggatattcc aagataaatg catgaatact 250
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Trp	Ala	Ala	Ser	Ser	Val	Glu	Val	Met	Ala	Val	Ala	Ala	Lys	Asn
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Val	Ala	Leu	Leu	Ala	Tyr	Asn	Arg	Trp	Tyr	Gln	Asp	Leu	Asp	Lys
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